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EXAMINER

PARSLEY, DAVID J

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PHILIP KNEISL

Appeal 2015-005758
Application 11/308,515
Technology Center 3600

Before MICHAEL L. HOELTER, SCOTT A. DANIELS, and
MITCHELL G. WEATHERLY, *Administrative Patent Judges*.

HOELTER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is a decision on appeal, under 35 U.S.C. § 134(a), from the Examiner's final rejection of claims 1–8. App. Br. 2. Claim 9 has been cancelled and claim 10 has been withdrawn. App. Br. 2. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

THE CLAIMED SUBJECT MATTER

The disclosed subject matter “relates to an explosive system for seismic charges which is safe from detonation by radio frequency (RF) signals and electrostatic discharge (ESD).” Spec. ¶ 1. Claims 1, 4, and 7 are independent claims. Claim 1 is illustrative of the claims on appeal and is reproduced below:

1. An explosive package for use in seismic exploration that requires a first arming signal, a second arming signal, and a firing signal to be detonated, comprising:
 - a seismic charge;
 - an addressable switch that receives the first arming signal and the second arming signal, the addressable switch being responsive to the first arming signal, the first arming signal being for use in selecting the seismic charge for detonation, the second arming signal being passed on to a fireset based on a response of the addressable switch to the first arming signal;
 - the fireset being responsive to the second arming signal and being operatively coupled to the addressable switch for receiving a firing signal via the addressable switch and for producing an actuation voltage at its output based on the firing signal; and
 - a Detonating Device which is operatively coupled to the output of the fireset for detonating the seismic charge upon presentation of the actuation voltage to the Detonating Device.

REFERENCES RELIED ON BY THE EXAMINER

Hendrix	US 5,404,820	Apr. 11, 1995
Dieman, Jr.	US 5,477,785	Dec. 26, 1995
Vaynshteyn	US 6,179,064 B1	Jan. 30, 2001
Lerche	US 7,007,756 B2	Mar. 7, 2006

THE REJECTIONS ON APPEAL

Claims 1, 3, 4, 6, and 7 are rejected under 35 U.S.C. § 103(a) as unpatentable over Hendrix, Lerche, and Dieman, Jr.

Claims 2, 5, and 8 are rejected under 35 U.S.C. § 103(a) as unpatentable over Hendrix, Lerche, Dieman, Jr., and Vaynshteyn.

ANALYSIS

*The rejection of claims 1, 3, 4, 6, and 7
as unpatentable over Hendrix, Lerche, and Dieman, Jr.*

Appellant argues claims 1, 3, 4, 6, and 7 together. App. Br. 4–9. We select independent claim 1 for review, with claims 3, 4, 6, and 7 standing or falling therewith. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner primarily relies on the teachings of Hendrix for disclosing the limitations of claim 1, including the disclosure of a switch that passes a second arming signal on to a device.¹ Final Act. 2–3. However, the Examiner relies on the teachings of Lerche for disclosing an explosive package using “an addressable switch” and on the teachings of Dieman Jr. for disclosing an arming signal being “passed on to a fireset.” Final Act. 3. The Examiner thereafter provides reasons for combining the teachings of Hendrix with those of Lerche and Dieman, Jr. Final Act. 3.

Appellant challenges the Examiner’s “premise that Hendrix discloses ‘a switch’ as claimed.” App. Br. 5; *see also* App. Br. 7. Appellant’s Specification does not expressly define a “switch,” but it states that the recited “switch” is used “to isolate the firing circuit of the detonator from the lead wire input until the detonator has been properly addressed and then armed.” Spec. ¶ 8; *see also* Spec. ¶ 10 (stating that the switch is “for use in

¹ To be specific, the Examiner identifies Hendrix’s “electronic safing and microcontroller in figure 5” as correlating to the claimed “switch.” Final Act. 2; *see also* Ans. 5.

selecting that seismic charge for detonation”). Such usage in Appellant’s Specification is also consistent with its various dictionary definitions.² Appellant further explains that a “switch” is a device “that manages and selectively passes along multiple different incoming arming signals as a prerequisite to firing.” App. Br. 6.

In accordance with such explanations (i.e., Appellant’s usage of the term “switch” in the Specification, its dictionary definitions, and its definition as stated in the Appeal Brief), Appellant fails to explain how Hendrix’s “electronic safing and microcontroller in figure 5” (Final Act. 2) is not also embodied by their explanations and definitions. For example, Appellant does not explain how Hendrix’s “switch” fails “to isolate the firing circuit of the detonator from the lead wire input until the detonator has been properly addressed and then armed.” Spec. ¶ 8. Likewise, Appellant does not explain how Hendrix’s “switch” fails to “manage[]and selectively

² Microsoft Computer Dictionary, Fifth Edition, copyright 2002, page 505, defines “switch” as follow:

switch *n.* **1.** A circuit element that has two states: on and off. **2.** A control device that allows the user to choose one of two or more possible states. **3.** In communications, a computer or electromechanical device that controls routing and operation of a signal path. **4.** In networking, a device capable of forwarding packets directly to the ports associated with particular network addresses. *See also* bridge, multilayer, router. **5.** In operating systems such as MS-DOS, an argument used to control the execution of a command or an application, typically starting with a slash character (/).

<https://www.merriam-webster.com/dictionary/switch> defines this term as: “a device for making, breaking, or changing the connections in an electrical circuit.” *See also*

<https://en.oxforddictionaries.com/definition/switch>.

pass[] along multiple different incoming arming signals as a prerequisite to firing.” App. Br. 6.

Instead, Appellant references an earlier Decision by the Board in which the Examiner was reversed. App. Br. 5 (referencing Decision on Appeal No. 2010-006431 (Application No. 11/308,515), dated February 15, 2013). However, this reversal was based on other grounds; and that earlier Decision did not address the issue before us now, i.e., whether or not Hendrix’s “electronic safing and microcontroller in figure 5” can be properly correlated to the claimed “switch.” Hence, Appellant’s reliance on this earlier Decision is unpersuasive.

Appellant further alleges that, in Hendrix, “there is no indication that the microcontroller ‘receives’ signals from elsewhere or selectively ‘passes on’ one of the signals to a fireset, etc. as claimed.” App. Br. 7; *see also* Reply Br. 3. Appellant’s contentions are not persuasive because figure 5 of Hendrix clearly illustrates Hendrix’s corresponding “switch” as receiving signals ARM 1 and ARM 2. *See* Hendrix 5:34–36 (“arming the system may require the presence of two independent arming command signals **40** and **41**”); *see also* Ans. 6. Regarding Appellant’s contention concerning the passing on of the signal to a fireset (*see* Reply Br. 3), even presuming for the sake of argument that Hendrix does not disclose such teaching (*but see, e.g.,* Hendrix 5:28–44), Appellant does not explain how the Examiner’s additional reliance on Dieman, Jr. for this teaching is in error.³ Final Act. 3 (referencing both Hendrix and Dieman, Jr. for such teachings).

³ Appellant states, “this deficiency is not cured by any other reference on record.” Reply Br. 3. Appellant does not provide any evidence to support this allegation, and it is not otherwise self-evident from the record.

Appellant also appears to be alleging improper hindsight because Appellant contends the Examiner relied on Appellant's Specification in rendering the rejection. App. Br. 8–9. Indeed, the Examiner has acknowledged deficiencies in the teachings of Hendrix, but to fill these deficiencies, the Examiner expressly relied on the teachings of Lerche and Dieman, Jr., not Appellant's Specification. *See* Final Act. 3.

Regarding Hendrix's lack of a disclosure of an “addressable” switch, as indicated *supra*, the Examiner relies on Lerche for this teaching. Final Act. 3. Furthermore, Appellant's Specification supports the Examiner's reliance on Lerche for such teaching by stating, “[a]ddressable switch technology has been commercially available in the mining and blasting industry for several years.” Spec. ¶ 8; *see also* Ans. 6.

Appellant also raises new arguments in the Reply Brief that were not raised earlier. *See* Reply Br. 4–6. For example, Appellant contends that employing wires instead of fiber optics (as in Hendrix) “would impermissibly require a fundamental change in [Hendrix's] operating principle” and as such, “would render Hendrix unsatisfactory for its intended purpose.” Reply Br. 4. Appellant also refers to such contentions as “these additional reasons.” Reply Br. 4. Appellant also, for the first time, presents separate arguments regarding claims 4 and 7. *See* Reply Br. 4–6. In Appellant's Appeal Brief, Appellant simply submitted “that the obviousness rejection of independent claims 1, 4 and 7 in light of Hendrix, Lerche and Dieman is erroneous” without arguing claims 4 and 7 separately from claim 1. App. Br. 9; *see also supra*. We decline to address these new arguments because “an issue not raised by an appellant in its opening brief . . . is waived.” *Optivus Tech., Inc. v. Ion Beam Applications S.A.*, 469 F.3d 978,

989 (Fed. Cir. 2006); *see also Ex Parte Borden*, 93 USPQ2d 1473 (BPAI 2010) (informative) (“The failure to raise all issues and arguments diligently, in a timely fashion, has consequences.”). Furthermore, as per 37 C.F.R. § 41.41(b)(2), absent a showing of good cause, the Board is not required to address arguments in a Reply Brief that could have been presented in the principal Brief. Appellant provides no indication that such arguments could not have been raised earlier, or that raising them now is justified by a showing of a good cause.

Accordingly, and based on the record submitted, we are not persuaded the Examiner erred in rejecting claims 1, 3, 4, 6, and 7 as being obvious over Hendrix, Lerche, and Dieman, Jr.

*The rejection of claims 2, 5, and 8 as unpatentable over
Hendrix, Lerche, Dieman, Jr., and Vaynshteyn*

When addressing this rejection based on the additional reference to Vaynshteyn, Appellant does not indicate how the Examiner erred in relying on this additional citation. Instead, Appellant states, “the fact remains that Hendrix, relied upon for teaching a switch that it does not teach, remains at issue.” App. Br. 9. In short, Appellant fails to explain how the Examiner’s additional reliance on Vaynshteyn (in combination with Hendrix, Lerche, and Dieman, Jr.) for disclosing the additional teachings of dependent claims 2, 5, and 8 is wrong or in error. Accordingly, we sustain the Examiner’s rejection of claims 2, 5, and 8 as being obvious over Hendrix, Lerche, Dieman, Jr., and Vaynshteyn.

DECISION

The Examiner’s rejections of claims 1–8 are affirmed.

Appeal 2015-005758
Application 11/308,515

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED